Program Management Plan

Everglades Protection Area Tributary Basins

Long-Term Plan for Achieving
Water Quality Goals
November 2003

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

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Introduction

The long-term Everglades water quality goal is to achieve the phosphorus criterion in the Everglades Protection Area. The Long-Term Plan sets forth the initial phase of a plan to ultimately achieve that goal, and to permit the State of Florida and the South Florida Water Management District (District) to proceed to fulfillment of their obligations under both the Everglades Forever Act (EFA, F.S. 373.4592) and the federal Everglades Settlement Agreement (Case No. 88-1886-CIV-MORENO). Implementation of the Long-Term Plan shall achieve water quality standards relating to the phosphorus criterion in the Everglades Protection Area by December 31, 2006. The Long-Term Plan consists of an optimal combination of source controls, Stormwater Treatment Areas (STAs), Advanced Treatment Technologies (ATTs), regulatory programs and integration with CERP projects for achieving water quality standards. In addition, the Plan continues the strong science base and adaptive implementation philosophy to allow continuous improvement until the long-term water quality goal is achieved.

Substantial progress towards reducing phosphorus levels discharged into the EPA has been made by the State of Florida and other stakeholders. The combined performance of the regulatory program in the Everglades Agricultural Area (EAA) and the STAs constructed under the 1994 Everglades Construction Project (ECP), both mandated by the EFA, has exceeded expectations. Current projections suggest that, once all STAs are operational, the best estimate of the long-term flow-weighted mean TP concentrations in discharges from the ECP to the EPA is approximately 35 ppb (with a potential range of 25-45 ppb), as compared to the interim goal of 50 ppb established in the EFA. In addition, some source control measures have been implemented in urban and other tributary basins included in the Everglades Stormwater Program. Nonetheless, additional measures are necessary to ensure that all discharges to the Everglades achieve and maintain compliance with the phosphorus criterion established in Rule 62-302.540, F.A.C.

Technical representatives of the District, the Florida Department of Environmental Protection, the Everglades Agricultural Area Environmental Protection District, and other stakeholders reviewed the results of the Basin Specific Feasibility Studies. Those technical representatives used those results to formulate a consensus approach to achieving the long-term water quality goals of the Everglades Forever Act. That recommended approach was set forth in the March 17, 2003 *Everglades Protection Area Tributary Basins, Conceptual Plan for Achieving Long-Term Water Quality Goals* (Long-Term Plan), Burns & McDonnell.

During the 2003 Legislative session, the 1994 EFA was amended to include reference to the March 17, 2003 Long-term Plan, with modifications, as the appropriate strategy for achieving the long-term water quality goals for the Everglades Protection Area. The amended EFA was subsequently revised during the same Legislative session to address concerns about portions of the amended version. Following are the key points of the amended 1994 Everglades Forever Act as well as the revised version:

- The Legislature finds that the Long-term Plan provides the best available phosphorus reduction technology based upon a combination of the BMPs and STAs described in the Plan provided that the Plan shall seek to achieve the phosphorus criterion in the Everglades Protection Area.

- The pre-2006 projects identified in the Long-term Plan shall be implemented by the District without delay, and revised with the planning goal and objective of achieving the phosphorus criterion.
- Revisions to the Long-term Plan shall be approved by the FDEP.
- Implementation of the Long-term Plan shall be integrated and consistent with the implementation of the projects and activities in the congressionally authorized components of the CERP so that unnecessary and duplicative costs will be avoided.
- Nothing regarding integration of Long-term Plan components with CERP projects shall modify any existing cost share or responsibility provided for projects included in the Water Resources Development Act of 1996 or the Water Resources Development Act of 2000.
- The Legislature does not intend for the provisions of the amended EFA to diminish commitments made by the State of Florida to restore and maintain water quality in the Everglades Protection Area, including the federal lands in the Settlement Agreement.
- The Legislature recognizes that the Long-Term Plan contains an initial 13-year phase (2003-2016) and a 10-year second phase. The Legislature intends that a review of the EFA at least 10 years after implementation of the initial phase is appropriate and necessary to the public interest. The review is the best way to ensure that the Everglades Protection Area is achieving state water quality standards, including phosphorus reduction, and the Long-Term Plan is using the best technology available. A 10-year second phase of the Long-Term Plan must be approved by the Legislature and codified in the EFA prior to implementation of projects, but not prior to development, review, and approval of projects by the department.
- The ad valorem tax proceeds not exceeding 0.1 mill levied within the Okeechobee Basin shall also be used for design, construction, and implementation of the initial phase of the Long-term Plan, including operation and maintenance, and research for the projects and strategies in the initial phase of the Long-term Plan, and including the enhancements and operation and maintenance of the Everglades Construction Project.

The Long-term Plan was revised to incorporate direction received from the Legislature in the amended Everglades Forever Act, as well as to address comments received from the public and interagency reviewers. The October 27, 2003 version of the Long-Term Plan can be found at:

http://www.sfwmd.gov/org/erd/bsfboard/bsfsboard.htm

The Long-Term Plan consists of three primary components:

Pre-2006 Projects – These are structural and operational modifications that can be supported by the current scientific and engineering knowledge base, to be implemented by December 31, 2006. They also include operation, maintenance, and monitoring of the Stormwater Treatment Areas (STAs). The pre-2006 recommended improvements and strategies are considered to be the maximum scientifically defensible steps that have been identified at this time. A brief summary of those recommended measures is presented in **Table 1**. A summary of the projected total phosphorus (TP) reductions for the ECP basins is presented in **Table 2**, and a summary of the projected TP reductions for the ESP basins is presented in **Table 3**. A summary of the estimated performance of all pre-2006 projects is presented in **Table 4**. Following operation of the Pre-

2006 projects, discharges from the Everglades Construction Project, equal to approximately 88% of the water entering the Everglades, are predicted to range from 10-14 ppb. It is possible that these improvements and strategies will not, in and of themselves, provide adequate assurance of an ability to consistently meet that objective on a long-term basis. Therefore, the Post-2006 Strategy discussed below is included in the Long-Term Plan. The only basins that are predicted to have discharges above the 10-14 ppb range after December 31, 2006 are those basins that have future CERP projects. These include the North Springs Improvement District, C-11 West, L-28 and Feeder Canal basins. Those basins' discharges account for approximately 12% of the total surface flows to the Everglades after completion of the Pre-2006 projects and CERP projects scheduled for completion prior to December 2006.

Process Development and Engineering (PDE) – These are activities designed to:

- Further understanding and optimize water quality performance in existing and proposed facilities.
- Facilitate integration with the Comprehensive Everglades Restoration Plan (CERP).
- Maintain and improve upon the contribution of source controls to overall water quality improvement goals.
- Investigate ways to accelerate the recovery of previously impacted areas in the EPA.

Post-2006 Strategy – This is the identification and adaptive implementation of additional water quality improvement measures that may be considered necessary to achieve the planning objective following completion of the pre-2006 activities and based on ongoing analysis of the PDE effort. It also includes implementation of steps identified that are capable of accelerating the recovery of previously impacted areas in the EPA, including final implementation of the hydropattern restoration activities directed by the EFA once water quality standards are achieved.

The Long-Term Plan was developed in recognition that:

- Achieving the phosphorus criterion (Rule 62-302.540, Florida Administrative Code) will involve an adaptive management approach, whereby the best available information is used to develop and implement incremental improvement measures as soon as their need and utility is confirmed, consistent with informed and prudent expenditure of public and private funds.
- Continued investigations are necessary to further improve the overall operation and performance of integrated water quality improvement strategies.
- Significant performance and economic benefits can be realized by integrating Everglades water quality improvement measures with CERP projects, even to the extent that existing schedules should be reevaluated in some basins and synchronized with CERP project schedules. Modifications to the design and operation of planned CERP projects should also be considered.

The total estimated expenditure through Fiscal Year 2016 for full implementation of the Long-Term Plan (excluding expenditures for presently identified CERP efforts) is $444 million. Of that total, approximately $272 million is associated with the operation, maintenance, and monitoring of the STAs modified and enhanced as described in the Long-Term Plan. The

incremental investment recommended in the Long-Term Plan totals $172 million. Of this amount, $36 million is included for adaptive implementation as described in the Post-2006 Strategy component of the Long-Term Plan. Substantial reliance is placed on source controls and full integration with CERP, particularly in the Everglades Stormwater Program basins. The majority of phosphorus reduction associated with CERP projects is not a result of the addition of water quality treatment measures; rather, it is a result of diversion of stormwater away from the Everglades, consistent with the authorized scope of CERP projects. This will result in significant cost avoidance, without cost increases to CERP projects, to achieve significant water quality benefits to the Everglades. The Long-Term Plan presents technical recommendations for water quality improvement strategies in those basins; it is intended that those recommendations be given full consideration in the CERP planning process. Projected costs for all components of the water quality improvement strategies that are recommended in the Long-Term Plan are summarized in **Table 5**. Those projected funding needs include allowances for cost escalation at an average annual rate of 3 percent, and they extend from Fiscal Year 2004 through Fiscal Year 2016.

It is intended that adoption and implementation of the strategies recommended in the Long-Term Plan will result in compliance with the water quality standards and improvement goals of the EFA, including the phosphorus criterion established in Rule 62-302.540, F.A.C. Nonetheless, it remains possible that other, more extensive measures might eventually be required if the strategies recommended in the Long-Term Plan eventually prove inadequate, or if the intended full integration with CERP is not realized. Analyses and discussions of such future possible measures are included in Part 6 of the Long-Term Plan. Those measures, none of which are presently recommended for implementation, might include expansion of the STAs in the ECP basins or diversion works and new treatment facilities in the ESP basins. Given the significant magnitude of additional expenditures for the future possible measures described in Part 6 of the Long-Term Plan, it is intended that the District submit a December 31, 2008 comprehensive report to the Florida Governor and the Florida legislature on the status and progress of the Long-Term Plan. That report should include specific identification of which, if any, more extensive measures are then considered necessary and defensible to achieve water quality standards and the goals of the EFA. It is the intent of the Long-Term Plan to prevent the need for more extensive measures, if at all possible.

The purpose of this **Program Management Plan** is to describe a comprehensive set of action plans, or project management plans, necessary to implement the many components of the Long-Term Plan. The individual project management plans in Part 2 of this document include references to the section and page number of the Long-Term Plan, project objectives, end products, significant activities, milestones, projected completion dates, relationship to other District projects, and support required from other departments and agencies. Collectively, these individual project management plans define the **Program Management Plan** for the Long-Term Plan.

Table 1. Pre-2006 Strategies

Basin	Strategies and Activities	Schedule (1)	
		Construction Complete	Full Operation
STA-1E	Convert Downstream Cells to SAV	10/01/2005	12/31/2006
STA-1W	Additional Compartmentalization; Improved Flow Control; Convert Additional Areas to SAV	05/01/2006	12/31/2006
STA-2	Additional Compartmentalization; Convert Additional Areas to SAV	05/01/2006	12/31/2006
STA-3/4	Additional Compartmentalization; Convert Additional Areas to SAV	05/01/2006	12/31/2006
STA-5	Improved Flow Control; Convert Additional Areas to SAV; Improved Management and Control of Seepage	10/01/2006	12/31/2006
STA-6	Additional Compartmentalization; Improved Flow Control; Convert Additional Areas to SAV; Add Water Supply Capability	10/01/2006	12/31/2006
Acme B	The CERP process will make the final determination of the appropriate strategy and be responsible for implementation. The most promising alternative appears to be diversion to STA-1E for treatment.	10/01/2006	12/31/2006
NSID	CERP Diversion & Elimination of Direct Discharge to EPA (Hillsboro Site 1 Project); Assist Local Communities in Developing & Evaluating Urban BMPs	12/31/2007 (Note 2)	12/31/2007 (Note 2)
NNRC	CERP Diversion & Elimination of Direct Discharge to EPA (Component YY4); Discontinue Use of G-123 if No Adverse Flooding Impacts	12/31/2006	2018 (Note 2)
C-11 West	CERP Diversion & Substantial Elimination of Direct Discharge to EPA (Western C-11, North Lake Belt Storage); Fund Add'l Analyses to Modify Project for Increased Reliability of Diversion; Assist Local Communities in Developing & Evaluating Urban BMPs	12/31/2006 (Note 2, Western C-11) 2036 (Note 2, North Lake)	2036 (Full complete) Majority of Diversion Complete in 2006
L-28	The CERP process will make the final determination of the appropriate strategy and be responsible for implementation. The most promising alternative appears to be construction of Miccosukee and Seminole Tribal STAs.	10/01/2008 (Note 3)	10/01/2010
Feeder Canal	Seminole Water Control Plan; McDaniel Ranch Property Owners Agreement; Additional BMPs in West Feeder Basin for Target TP Conc. of 50 ppb; Accelerate Completion of CERP Project for Diversion of L-28 Interceptor	12/31/2006 (Source controls)	10/01/2009 (Note 3)

Notes: (1) Anticipated earliest completion schedule for construction and full operation.

(2) Actual completion schedule controlled by CERP; schedule taken from latest CERP documents.

(3) Actual completion schedule controlled by CERP; schedule shown is accelerated from that shown in latest CERP planning documents.

Table 2. Projected TP Reductions in the ECP Basins

Basin	Period		Est. Ave. Annual Discharge		Estimated TP Concentrations		Remarks
	From	Through	Volume (ac-ft)	TP Load (tonnes)	Flow-Weight Mean (ppb)	Geometric Mean (ppb)	
STA-1E	2004	2006	148,400	7.03	38	34	For Current Design of STA-1E
	2007	2056	175,000	3.31 - 3.64	15 - 24	10 - 11	After Enhancement of STA-1E and Diversion of Acme Basin B
STA-1W	2004	2006	188,100	5.65 - 6.12	24 - 30	24 - 26	For Existing STA-1W
	2007	2056	183,300	3.15 - 4.09	14 - 22	10 - 13	After Enhancement of STA-1W
STA-2	2004	2006	223,300	9.08 - 9.63	33 - 37	33 - 35	For Existing STA-2
	2007	2014	222,600	4.59 - 6.42	17 - 28	10 - 14	After Enhancement of STA-2
	2014	2056	197,500	3.52 - 4.58	14 - 24	10 - 13	After Full Completion of CERP
STA-3/4	2004	2006	623,700	28.01	36	36	For Current Design of STA-3/4
	2007	2014	621,200	10.98 - 15.37	14 - 21	10 - 14	After Enhancement of STA-3/4
	2015	2056	588,600	10.19 - 15.28	14 - 21	10 - 15	After Full Completion of CERP
STA-5	2004	2006	125,900	6.93 - 7.36	45 - 50	32 - 34	For Existing STA-5
	2007	2014	125,500	3.03 - 3.94	20 - 30	10 - 13	After Enhancement of STA-5
	2015	2056	125,500	3.03 - 3.94	20 - 30	10 - 13	After Full Completion of CERP
STA-6	2004	2006	35,300	1.23	28	20	For Existing STA-6 (With Section 2 Completed)
	2007	2014	35,100	0.75 - 0.97	17 - 24	10 - 13	After Enhancement of STA-5
	2015	2056	57,600	1.20 - 1.44	17 - 22	10 - 12	After Full Completion of CERP
All	2004	2006	1,344,700	57.93 - 59.39	35 - 36	20 - 36	Existing (No Project) Conditions
ECP	2007	2014	1,362,700	25.80 - 34.44	15 - 20	10 - 14	After STA Enhancements
Basins	2015	2056	1,327,500	24.40 - 32.97	15 - 20	10 - 15	After Full Completion of CERP

Table 3. Projected TP Reductions in the ESP Basins

Basin	Period		Est. Ave. Annual Discharge		Estimated TP Concentrations		Remarks
	From	Through	Volume (ac-ft)	TP Load (tonnes)	Flow-Weight Mean (ppb)	Geometric Mean (ppb)	
Acme	2004	2006	31,500	2.75	71		Existing Conditions, with 25% reduction in TP load due to BMPs
Basin B	2007	2056	0	0.00	N/A		After Diversion to STA-1E (Included in STA-1E Discharge Summary)
NSID	2004	2007	6,800	0.29	39		Existing Conditions Discharge to WCA-2A
	2008	2056	0	0.00	N/A		After Diversion to Hillsboro Site 1
NNRC	2004	2006	1,800	0.04	18		Existing Conditions Discharge to WCA-3A
	2007	2018	0	0.00	N/A		Assumes Discontinuation of G-123 Does Not Reduce Flood Protection
	2018	2056	0	0.00	N/A		After Completion of WCA-2 and WCA-3 Diversion Project
C-11	2004	2006	194,000	4.06	17		Current Discharges Prior to Completion of Critical Project at S-9 (S-9A); Some Reduction Prior to 2006
	2007	2036	18,300	0.49	22		After Critical Project and Diversion to Western C-11 Impoundment; Excludes Seepage Return at S-9A
	2037	2056	900	0.03	28		After Completion of North Lake Belt Storage Project; Excludes Seepage Return at S-9A
L-28	2004	2010	84,000	3.98	39		Existing Conditions, Flows and Loads Adjusted to Reflect C-139 Annex Discharges Directed to STA-6
	2011	2056	84,000	1.43	14	10	Following Completion and Full Stabilization of Miccosukee & Seminole Tribal STAs
Feeder	2004	2006	77,000	14.85	156		Existing Conditions
Canal	2007	2010	77,000	4.76	50		Following Completion of Seminole Big Cypress WCP; McDaniel Ranch BMPs; West Feeder Basin BMPs
	2011	2056	0	0.00	N/A		Full Diversion to Big Cypress National Preserve (Big Cypress/L-28 Interceptor Modifications)
All	2004	2006	395,100	25.98	53		
ESP		2007	186,100	9.53	42		
Basins	2008	2010	179,300	9.24	42		
	2011	2036	102,300	1.92	15		
	2037	2056	84,900	1.46	14		

Table 4. Estimated TP Reduction Performance of Pre-2006 Projects

Period		Estimated Average Annual Discharges									
From	Thru	All ECP Basins				All ESP Basins			All Basins		
		Volume (ac-ft)	Load (metric tons)	TP Conc. (ppb) F.W. Mean	TP Conc. (ppb) Geo. Mean	Volume (ac-ft)	TP Load (metric tons)	FW TP Conc (ppb)	Volume (ac-ft)	Load (metric tons)	FW TP Conc (ppb)
2004	12/30/06	1,344,700	57.9 - 59.4	35 - 36	20 - 36	395,100	26.0	53	1,739,800	83.9 - 85.4	39 - 40
12/31/06	12/31/07	1,362,700	25.8 - 34.4	15 - 20	10 - 14	186,100	9.5	42	1,548,800	35.3 - 44.0	18 - 23
2008	2010	1,362,700	25.8 - 34.4	15 - 20	10 - 14	179,300	9.2	42	1,542,000	35.0 - 43.7	18 - 23
2011	2014	1,362,700	25.8 - 34.4	15 - 20	10 - 14	102,300	1.9	15	1,465,000	27.7 - 36.4	15 - 20
2015	2036	1,327,500	24.4 - 33.0	15 - 20	10 - 15	102,300	1.9	15	1,429,800	26.3 - 34.9	15 - 20
2037	2056	1,327,500	24.4 - 33.0	15 - 20	10 - 15	84,900	1.5	14	1,412,400	25.9 - 34.4	15 - 20

Table 5. Projected Costs through FY 2016 by Long-term Plan Component

Fiscal Year	Summary of Projected Expenditures by Function (in $1,000s)									
	Pre-2006 Projects		PD&E Process	Recovery of Impacted Areas	Operation & Maintenance	Monitoring		Program Management	Funds for Adaptive Implement.	Fiscal Year Total Expenditure
	ECP Basins	ESP Basins				Permit Compliance	Operations Support			
2004	$5,049	$500	$8,835	$1,283	$9,433	$3,640	$2,208	$916	$0	$31,864
2005	$15,044	$750	$8,650	$1,317	$10,894	$3,475	$3,167	$1,248	$0	$44,544
2006	$11,426	$667	$6,268	$1,351	$12,085	$3,363	$3,580	$1,108	$0	$39,847
2007	$0	$0	$5,827	$279	$12,173	$3,450	$3,673	$1,970	$9,000	$36,372
2008	$0	$0	$5,404	$460	$12,545	$3,581	$3,812	$979	$9,000	$35,782
2009	$0	$0	$4,648	$1,199	$12,917	$3,674	$3,911	$994	$9,000	$36,343
2010	$0	$0	$1,050	$3,207	$12,816	$3,785	$4,029	$964	$9,000	$34,851
2011	$0	$0	$799	$15,525	$13,201	$3,898	$4,150	$1,073	$0	$38,644
2012	$0	$0	$626	$15,878	$13,593	$4,000	$4,258	$1,098	$0	$39,454
2013	$0	$0	$847	$2,000	$14,538	$4,135	$4,402	$706	$0	$26,628
2014	$0	$0	$666	$2,000	$14,974	$4,260	$4,534	$719	$0	$27,153
2015	$0	$0	$757	$0	$15,423	$4,387	$4,670	$681	$0	$25,919
2016	$0	$0	$563	$0	$15,893	$4,536	$4,829	$695	$0	$26,518
Total	**$31,518**	**$1,917**	**$44,942**	**$44,498**	**$170,484**	**$50,185**	**$51,224**	**$13,151**	**$36,000**	**$443,918**

Note: The above projections are expressed in escalated dollars, considering average annual inflation of 3% throughout the planning period.

Table 1.2 SFWMD Budget Activity Codes for Long-Term Plan Projects

Budget Code	Project Description	Ref. Section No.
ECP BASINS		2
Bc10	STA-1E Enhancements	2.1
Bc20	STA-1W Enhancements	2.2
Bc30	STA-2 Enhancements	2.3
Bc40	STA-3/4 Enhancements	2.4
Bc50	STA-5 Enhancements	2.5
Bc60	STA-6 Enhancements	2.6
Bf	ECP Operation and Maintenance - STAs and non-STAs	8.1, 8.2
Bf80	ECP Compliance Monitoring	8.3
Bc05	ECP Operations Monitoring	8.4
Bf81	STA Site Management	8.5.1
ESP BASINS		3
Bc75	Acme Basin B	3.1
Bc71	NSID	3.2
Bc72	NNRC Basin	3.3
Bc73	C-11 West Basin	3.4
Bc74	Feeder Canal Basin	3.6
PROCESS DEVELOPMENT AND ENGINEERING (PDE)		5
Basin Source Controls		5.1
Bc81(1)	EAA Basins - Source Controls	5.1.1
Bc81(2)	C-139 Basin - Source Controls	5.1.2
Enhanced Control and Monitoring		5.2
Bc82(1)	Acquisition of Survey Data	5.2.1
Bc82(2)	Additional Flow and Water Quality Monitoring Stations	5.2.2
Bc82(3)	Review and Correction of Flow Measurement Anomalies	5.2.3
Bc82(4)	Analysis and Interpretation	5.2.4
Bc82(5)	Update and Maintenance of Hydraulic Models	5.2.5
Improved Analytical and Forecasting Tools		5.3
Bc83(1)	Continued Development and Refinement of DMSTA	5.3.1
Bc83(2)	Water Quality Impacts of Reservoirs	5.3.2
Bc83(3)	PSTA Investigations	5.3.3
Bc83(4)	PSTA Demonstration Project in STA-3/4	5.3.3
Optimizing SAV Performance		5.4
Bc84(1)	Operational Strategy	5.4.1
Bc84(2)	Vegetation Maintenance	5.4.2
Bc84(3)	Hydrologic and Hydraulic Assessment	5.4.3
Bc84(4)	Internal Measurements	5.4.4
Bc84(5)	Comparative Analysis	5.4.5
Additional Structural and Operational Measures		5.5
Bc25	Evaluation of Full-Scale STA Enhancements	5.5.1
Improved Reliability of Inflow Forecasts		5.6
Bc86(1)	Update Baseline Data Sets	5.6.1
Bc86(2)	Basins With Limited Current Data	5.6.2
Bc86(3)	Influence of CERP Projects on Inflow Volumes and Loads	5.6.3
Bc86(4)	Lake Okeechobee Long-term Trends	5.6.4
Bc86(5)	Determine Water Quality Relationships in the EPA	5.6.5
ACCELERATE RECOVERY OF IMPACTED AREAS		7
Bc87(1)	Recovery Model Development and Calibration	7.1.1
Bc87(2)	Downstream Influence of Adding Clean Water to Previously Impacted Areas	7.1.2
Bc87(3)	Options for Accelerating Recovery	7.1.3
Bc87(4)	Alternatives Analysis and Plan Formulation	7.1.4
Bc87(5)	Hydropattern Restoration	7.2
Bc87(6)	Implement Steps for Recovery in Impacted Areas	7.3
Bc88	**Adaptive Implementation**	6.3.1
Bc90	**Program Management**	2.7.1, 3.7, 5.7, 6.3.1, 7.4.1, 8.5.2

PROJECT MANAGEMENT PLAN	
PROJECT:	Bc10 STA-1 East Enhancements
LONG-TERM PLAN REFERENCE (Section and page number):	2.1 (Page 2-3)
LEAD AGENCY:	SFWMD
LEAD GROUP:	ECP Construction, 3731
SFWMD PROJECT MANAGER:	James Sturgis
Objective:	Enhance treatment effectiveness of STA-1E
End Products:	Herbicide treatment of Cells 2, 4N, 4S, and 6 for conversion to SAV.
Complete Date:	September 30, 2005 (May 2005 early completion)
Activities, Milestones and Target Completion Dates:	Design start – January 2004 RFB issue – September 2004 Bids due –October 2004 Governing board – November 2004 Construction start – December 2004 Construction complete – May 2005 (early completion)
Associated Projects:	STA-1E USACE Contracts
Support From Other Agencies and Departments	USACE coordination. OMD coordination for diversion of water from cells for herbicide treatment.
Major Uncertainties Associated With Project Activities:	Grow in period for vegetation in the sandy soils of this STA.
Project Manager Comments	

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$ 912,000**		
FY04	$ 78,000		
FY05	$ 834,000		
FY06	$ 0		
FY07	$ 0		
FY08	$ 0		
FY09	$ 0		
FY10	$ 0		
FY11	$ 0		
FY12	$ 0		
FY13	$ 0		
FY14	$ 0		
FY15	$ 0		
FY16	$ 0		

Note: Program management costs are shown in Bc90. Incremental O&M costs are shown in Bf.

PROJECT MANAGEMENT PLAN	
PROJECT:	Bc20 STA-1 West Enhancements
LONG-TERM PLAN REFERENCE (Section and page number):	2.2 (Page 2-9)
LEAD AGENCY:	SFWMD
LEAD GROUP:	ECP Construction 3731
SFWMD PROJECT MANAGER:	Tim Carter, x 7367
Objective:	Enhance treatment effectiveness of STA-1W.
End Products:	Construct 2.2 miles of levee, 11 water control structures, one 65 cfs pump station, power and telemetry in Cells 1 & 2. Herbicide control in cells 1, 2 and 3 for conversion to SAV.
Complete Date:	September 30, 2006
Activities, Milestones and Target Completion Dates:	Design start - December 2003 RFB issue - June 2004 Bids due - July 2004 Governing board - August 2004 Construction start - October 2004 Construction complete - September 2006
Associated Projects:	Limerock Berm in Cell 5 completed in June 2003
Support From Other Agencies and Departments	Design engineering will be done by SFWMD Engineering, 3720. OMD diversion of water from cells for levee and structure work in dry season.
Major Uncertainties Associated With Project Activities:	One cell will be taken off line each of two dry seasons to facilitate levee construction and structure construction activities.
Project Manager Comments	

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$ 5,950,000**		
FY04	$ 520,000		
FY05	$ 2,905,000		
FY06	$ 2,525,000		
FY07	$ 0		
FY08	$ 0		
FY09	$ 0		
FY10	$ 0		
FY11	$ 0		
FY12	$ 0		
FY13	$ 0		
FY14	$ 0		
FY15	$ 0		
FY16	$ 0		

Note: Program management costs are shown in Bc90. Incremental O&M costs are shown in Bf.

PROJECT MANAGEMENT PLAN			
PROJECT:	Bc30 STA-2 Enhancements		
LONG-TERM PLAN REFERENCE (Section and page number):	2.3 (Page 2-17)		
LEAD AGENCY:	SFWMD		
LEAD GROUP:	ECP Construction, 3731		
SFWMD PROJECT MANAGER:	Tim Carter, x7367		
Objective:	Enhance treatment effectiveness of STA-2.		
End Products:	Construct 3.3 miles of levee, 12 water control structures, one 14 cfs pump station, power and telemetry in Cells 1, 2, and 3. Herbicide treatment of 1A, 2A and 3A/B for conversion to SAV.		
Complete Date:	September 30, 2003		
Activities, Milestones and Target Completion Dates:	Design start – June 2003 RFB issue - May 2004 Bids due – June 2004 Governing board – July 2004 Construction start – August 2004 (borrow area only) Construction start - Nov. 2004 (Cells 1 & 2), Nov. 2005 (Cell 3) Construction complete - September 2006		
Associated Projects:	L-6 levee Modifications to be completed by April 2004.		
Support From Other Agencies and Departments	Design engineering by SFWMD Engineering Division, 3720. OMD diversion of water from cells for levee and structure work in dry season. CERP coordination with EAA reservoir project to utilize North New River Canal for borrow area adjacent to Woerner property.		
Major Uncertainties Associated With Project Activities:	Land for borrow area available in March 2004 per lease agreement with Woerner. Cells 1 and 2 will be taken off line between November 2004 and May 2005, one at a time to facilitate levee and structure construction activities. Cell 3 will be taken off line in November 2005 for same purposes.		
Project Manager Comments			
Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$ 8,240,000**		
FY04	$ 1,540,000		
FY05	$ 4,620,000		
FY06	$ 2,080,000		
FY07	$ 0		
FY08	$ 0		
FY09	$ 0		
FY10	$ 0		
FY11	$ 0		
FY12	$ 0		
FY13	$ 0		
FY14	$ 0		
FY15	$ 0		
FY16	$ 0		

Note: Program management costs are shown in Bc90. Incremental O&M costs are shown in Bf.

PROJECT MANAGEMENT PLAN	
PROJECT:	Bc40 STA-3/4 Enhancements
LONG-TERM PLAN REFERENCE (Section and page number):	2.4 (Page 2-26)
LEAD AGENCY:	SFWMD
LEAD GROUP:	ECP Construction, 3731
SFWMD PROJECT MANAGER:	Rich Virgil and Tim Carter
Objective:	Enhance treatment effectiveness of STA-3/4.
End Products:	Construct 3.3 miles of levee, 6 water control structures, one 24 cfs pump station, power and telemetry in Cell 3. Construct one 54 cfs pump station in Cell 1, & one 29 cfs pump station in Cell 2. Herbicide treatment in Cells 1B, 2B, & 3B for conversion to SAV.
Complete Date:	September 2006.
Activities, Milestones and Target Completion Dates:	Start design – April 2003 RFB issue - August 2004 Bids due – September 2004 Governing Board – October 2004; Construction start – November 2004 All construction complete September 2006
Associated Projects:	STA-3/4 Works contract is behind schedule about six months.
Support From Other Agencies and Departments	OMD diversion of water from Cell 3 for levee and structure work.
Major Uncertainties Associated With Project Activities:	A separate contract will be let for the STA-3/4 Enhancements work; therefore, work will not begin until Shaw is complete. The Cell 3 work would be done in the dry season.
Project Manager Comments	

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$ 8,713,000**		
FY04	$ 2,272,000		
FY05	$ 2,448,000		
FY06	$ 3,993,000		
FY07	$ 0		
FY08	$ 0		
FY09	$ 0		
FY10	$ 0		
FY11	$ 0		
FY12	$ 0		
FY13	$ 0		
FY14	$ 0		
FY15	$ 0		
FY16	$ 0		

Note: Program management costs are shown in Bc90. Incremental O&M costs are shown in Bf.

PROJECT MANAGEMENT PLAN	
PROJECT:	Bc50 STA-5 Enhancements
LONG-TERM PLAN REFERENCE (Section and page number):	2.5 (Page 2-34)
LEAD AGENCY:	SFWMD
LEAD GROUP:	ECP Construction, 3731
SFWMD PROJECT MANAGER:	Richard Virgil
Objective:	Enhance treatment effectiveness of STA-5.
End Products:	Construct eight new adjustable crest weir gates on the G-343 structures, two 45 cfs seepage return pump stations, power and telemetry.
Complete Date:	May 2006
Activities, Milestones and Target Completion Dates:	Design start – October 2003 RFB Issue – June 2004 Bids due – August 2004 Governing board – September 2004 Construction start – October 2004 Construction complete – May 2006 (levees), Sept. 2006 (power and telemetry)
Associated Projects:	STA-6, Section 2
Support From Other Agencies and Departments	Design engineering will be done by SFWMD Engineering, 3720. OMD diversion of water from cells to allow dewatering berms to be installed around work locations.
Major Uncertainties Associated With Project Activities:	Only one structure per cell will be taken off line during the dry season. Two dry seasons will be utilized to complete the work.
Project Manager Comments	

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$3,040,000**		
FY04	$ 260,000		
FY05	$1,560,000		
FY06	$1,220,000		
FY07	$ 0		
FY08	$ 0		
FY09	$ 0		
FY10	$ 0		
FY11	$ 0		
FY12	$ 0		
FY13	$ 0		
FY14	$ 0		
FY15	$ 0		
FY16	$ 0		

Note: Program management costs are shown in Bc90. Incremental O&M costs are shown in Bf.

PROJECT MANAGEMENT PLAN	
PROJECT:	Bc60 STA-6 Enhancements
LONG-TERM PLAN REFERENCE (Section and page number):	2.6 (Page 2-42)
LEAD AGENCY:	SFWMD
LEAD GROUP:	ECP Construction 3731
SFWMD PROJECT MANAGER:	Richard Virgil
Objective:	Enhance treatment effectiveness of STA-6.
End Products:	Construct 0.8 miles of levee in Cell 5, three water control structures, one 30 cfs pump station, power and telemetry. Herbicide treatment of Cells 4 & 5B for conversion to SAV.
Complete Date:	September 30, 2006
Activities, Milestones and Target Completion Dates:	Design start - October 2003 RFB issue- June 2004 Bids due - July 2004 Governing board – August 2004 Construction start- October 2004 (Enhancements) (Section 2 start April 2004) Construction complete- May 2006
Associated Projects:	STA-6, Section 2 and STA-6, Section 1 Work will be packaged with STA-6 Section 2 project.
Support From Other Agencies and Departments	None
Major Uncertainties Associated With Project Activities:	None
Project Manager Comments	

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$2,920,000**		
FY04	$ 610,000		
FY05	$1,155,000		
FY06	$1,155,000		
FY07	$ 0		
FY08	$ 0		
FY09	$ 0		
FY10	$ 0		
FY11	$ 0		
FY12	$ 0		
FY13	$ 0		
FY14	$ 0		
FY15	$ 0		
FY16	$ 0		

Note: Program management costs are shown in Bc90. Incremental O&M costs are shown in Bf.

PROJECT MANAGEMENT PLAN	
PROJECT:	Bf ECP Operation and Maintenance
LONG-TERM PLAN REFERENCE (Section and page number):	8 (page 8-1)
LEAD AGENCY:	SFWMD
LEAD GROUP:	Operations Control, Engineering and Vegetation Management
SFWMD PROJECT MANAGER:	Sharon Trost
Objective:	To perform routine maintenance and operation of STAs and related works to maintain optimal nutrient reduction performance.
End Products:	Maintenance and operation of STAs and non-STA works in keeping with the requirements of the EFA.
Complete Date:	On-going
Activities, Milestones and Target Completion Dates:	Mechanical and electrical maintenance of pump stations and water control structures, building maintenance, levee mowing, grading and treatment of berms, primary canal maintenance, maintenance of vegetated areas, diesel fuel consumption and all electrical costs. Also, vegetation management and establishment of desired vegetative communities are charged to this program.
Associated Projects:	Bf81 STA Site Management
Support From Other Agencies and Departments	Project Implementation Department
Major Uncertainties Associated With Project Activities:	Only four STAs are fully operational at this time. Our future O&M cost estimates are based on standardized unit costs for various maintenance activities. We may discover variations from these unit costs as more STAs come on line. The most significant uncertainties in cost estimates for STA maintenance are the estimates for vegetative succession (changing vegetative communities to desired communities on a large scale).
Project Manager Comments	

Project Cost Estimates	10/2003 Long-Term Plan (2003 dollars)		
Total cost	**$125,375,000**		
FY04	$8,470,000		
FY05	$9,519,000		
FY06	$10,316,000		
FY07	$9,987,000		
FY08	$9,987,000		
FY09	$9,987,000		
FY10	$9,587,000		
FY11	$9,587,000		
FY12	$9,587,000		
FY13	$9,587,000		
FY14	$9,587,000		
FY15	$9,587,000		
FY16	$9,587,000		

PROJECT MANAGEMENT PLAN	
PROJECT:	Bf80 ECP Permits And Compliance Monitoring
LONG-TERM PLAN REFERENCE (Section and page number):	8.3 (page 8-7)
LEAD AGENCY:	SFWMD
LEAD GROUP:	OCEVM
SFWMD PROJECT MANAGER:	Ron Bearzotti
Objective:	To fulfill the flow and water quality monitoring, analysis and compliance reporting requirements of the EFA and NPDES permits issued to the District for the ECP
End Products:	Water quality and flow data, compliance reports
Complete Date:	On-going
Activities, Milestones and Target Completion Dates:	On-going biweekly and monthly data collection and analysis. On-going Quarterly Water Conditions Reports. Annual Compliance Reporting (Everglades Consolidated Report, Jan. 1 of each year). Annual NPDES Compliance site inspections at STAs.
Associated Projects:	STA Optimization Research
Support From Other Agencies and Departments	Environmental Monitoring and Assessment Department Southern Everglades Restoration, Everglades Division
Major Uncertainties Associated With Project Activities:	None
Project Manager Comments	

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$40,960,000**		
FY04	$3,560,000		
FY05	$3,300,000		
FY06	$3,100,000		
FY07	$3,100,000		
FY08	$3,100,000		
FY09	$3,100,000		
FY10	$3,100,000		
FY11	$3,100,000		
FY12	$3,100,000		
FY13	$3,100,000		
FY14	$3,100,000		
FY15	$3,100,000		
FY16	$3,100,000		

PROJECT MANAGEMENT PLAN	
PROJECT:	Bc05 Operational Monitoring
LONG-TERM PLAN REFERENCE (Section and page number):	8.4 (Page 8-8)
LEAD AGENCY:	SFWMD
LEAD GROUP:	ED
SFWMD PROJECT MANAGER:	Mike Chimney
Objective:	Operational monitoring of the STAs that is not required by the permit
End Products:	Water quality analysis at selected inflow and outflow structures located within the STAs Flow data for each non-permit compliance structure located within the STAs
Complete Date:	2016
Activities, Milestones and Target Completion Dates:	Weekly and biweekly water quality collection and sample analysis for TP, SRP, TDPO4, OPO4, TSS, Ca, Cl, ALK, TKN, NH4, and nitrate/nitrite. Annual purchase, installation and maintenance of the sampling and flow monitoring equipment. Annual calibration of the autosamplers and weir structures. Annual quality control for the collection, analysis, and archiving of the data collected. Calibration, installation, monitoring, data collection, maintenance, QA, and archiving of flow data for all the flow structures indirectly associated with permit compliance but necessary for flood control and STA Optimization
Associated Projects:	Bc82 Bb24 Bf80
Support From Other Agencies and Departments	Support from Environmental Assessment and Monitoring (EMA) will be essential in providing the contingent workforce, instrumentation, vehicles, and QA/QC for the collection and analysis of the water samples from the non-permit collection sites located in the STAs. Additionally this EMA is responsible for providing the contract support for the overflow labs, as well as the H&H support required to calculate flows through the STA structures. Support from Operations will be needed for the operation and site management of the STAs. Installation and maintenance of flow monitoring equipment and autosamplers will be needed from the I.T. Division. Lastly, support for the day-to-day and short term monitoring of performance will be needed from Operations and Water Resources Management
Major Uncertainties Associated With Project Activities:	**This work cannot be done without contract employees.** Cost estimates beyond FY05 are based on FY03 & FY04 budgets and will be reviewed and updated periodically.
Project Manager Comments	

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$41,467,000**		
FY04	$2,160,000		
FY05	$3,007,000		
FY06	$3,300,000		
FY07	$3,300,000		
FY08	$3,300,000		
FY09	$3,300,000		
FY10	$3,300,000		
FY11	$3,300,000		
FY12	$3,300,000		
FY13	$3,300,000		
FY14	$3,300,000		
FY15	$3,300,000		
FY16	$3,300,000		

PROJECT MANAGEMENT PLAN	
PROJECT:	Bf81 STA Site Management
LONG-TERM PLAN REFERENCE (Section and page number):	8.5.1. (Page 8-11)
LEAD AGENCY:	SFWMD
LEAD GROUP:	Operations Control, Engineering and Vegetation Management
SFWMD PROJECT MANAGER:	Thomas Kosier
Objective:	To oversee the day-to-day activities involving operation and maintenance of the individual STAs. To provide effective coordination between the field stations, researchers, control room, performance manager, vegetation management and other entities to ensure optimal STA performance. To ensure that STA operational plans are followed.
End Products:	Efficient site management of STAs, documentation of site management activities & expenditures
Complete Date:	On-going
Activities, Milestones and Target Completion Dates:	Site management of Stormwater Treatment Areas
Associated Projects:	Bf 80, Bf, Bc05,
Support From Other Agencies and Departments	Southern Everglades Restoration, Everglades Construction Project, Executive Office Staff, FTL, WPB and CLE Regional Field Stations
Major Uncertainties Associated With Project Activities:	Relative newness of site management function / institutional knowledge. "Learning curve" at WMD relating to management and operations of environmental infrastructure.
Project Manager Comments	

Project Cost Estimates	10/2003 Long-Term Plan (2003 dollars)		
Total cost	**$6,303,000**		
FY04	$353,000		
FY05	$425,000		
FY06	$425,000		
FY07	$510,000		
FY08	$510,000		
FY09	$510,000		
FY10	$510,000		
FY11	$510,000		
FY12	$510,000		
FY13	$510,000		
FY14	$510,000		
FY15	$510,000		
FY16	$510,000		

PROJECT MANAGEMENT PLAN	
PROJECT:	Bc75 Acme Basin B
LONG-TERM PLAN REFERENCE (Section and page number):	3.1 (Page 3-4)
LEAD AGENCY:	SFWMD
LEAD GROUP:	EREG
SFWMD PROJECT MANAGER:	Damon Meiers
Objective:	To assist the Village of Wellington in developing, evaluating and implementing source control programs.
End Products:	Construction of BMP projects targeting "hotspots" within Basin B.
Complete Date:	September 30, 2006
Activities, Milestones and Target Completion Dates:	Completion of BMP Implementation Plans by October 2004 and 2005. Completion of projects in BMP Implementation Plans by September 2005 and 2006.
Associated Projects:	Existing cost share agreements for monitoring and BMP implementation CERP Acme Basin B OPE STA-1E Environmental Resource Permit Program
Support From Other Agencies and Departments	Wellington CERP Regulation
Major Uncertainties Associated With Project Activities:	Cooperation of special interest groups in the Wellington area.
Project Manager Comments	

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$92,887**		
FY04			
FY05	$47,130		
FY06	$45,757		
FY07			
FY08			
FY09			
FY10			
FY11			
FY12			
FY13			
FY14			
FY15			
FY16			

PROJECT MANAGEMENT PLAN			
PROJECT:	Bc71 NSID Basin		
LONG-TERM PLAN REFERENCE (Section and page number):	3.2. (Page 3-15)		
LEAD AGENCY:	SFWMD		
LEAD GROUP:	EREG		
SFWMD PROJECT MANAGER:	Damon Meiers		
Objective:	To assist local communities in developing, evaluating and implementing source control programs.		
End Products:	Implementation of source control programs.		
Complete Date:	September 30, 2006		
Activities, Milestones and Target Completion Dates:	Assist NSID, the City of Parkland and Coral Springs to implement source control programs by September 2006.		
Associated Projects:	Existing cost share agreements for monitoring and BMP implementation. CERP Hillsboro Impoundment project. Broward County Integrated Water Resources Plan. Environmental Resource Permit Program. Hydraulic analyses of potential impacts of directing NSID discharges to the Hillsboro Canal after the Hillsboro Impoundment CERP project is operational.		
Support From Other Agencies and Departments	Broward County NSID City of Parkland	City of Coral Springs Operations Dept. Public Information Dept.	CERP Regulation
Major Uncertainties Associated With Project Activities:	Cooperation of municipalities and special interests in NSID area.		
Project Manager Comments			

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$240,508**		
FY04	$82,052		
FY05	$80,399		
FY06	$78,057		
FY07			
FY08			
FY09			
FY10			
FY11			
FY12			
FY13			
FY14			
FY15			
FY16			

PROJECT MANAGEMENT PLAN			
PROJECT:	Bc72 NNRC Basin		
LONG-TERM PLAN REFERENCE (Section and page number):	3.3, (Page 3-18)		
LEAD AGENCY:	SFWMD		
LEAD GROUP:	EREG		
SFWMD PROJECT MANAGER:	Damon Meiers – Sr. Supervising Eng.		
Objective:	To ensure that the basin's current level of flood protection is maintained if the use of structure G-123 is discontinued.		
End Products:	A flood impact analysis will be performed.		
Complete Date:	September 30, 2004		
Activities, Milestones and Target Completion Dates:	Flood impact analysis of the NNRC if the G-123 structure is no longer used to discharge water into the EPA. Analysis complete by September 30, 2004.		
Associated Projects:	Existing cost share agreements for monitoring and BMP implementation. Broward County Integrated Water Resources Plan. Assistance of local communities in developing, evaluating and implementing source control programs.		
Support From Other Agencies and Departments	Broward County City of Sunrise OPWCD	PAID City of Plantation Operations Dept.	Public Information Dept.
Major Uncertainties Associated With Project Activities:	Cooperation of municipalities and special interests in the NNRC basin area.		
Project Manager Comments			

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$57,284**		
FY04	$57,284		
FY05			
FY06			
FY07			
FY08			
FY09			
FY10			
FY11			
FY12			
FY13			
FY14			
FY15			
FY16			

PROJECT MANAGEMENT PLAN	
PROJECT:	Bc73 C-11W Basin
LONG-TERM PLAN REFERENCE (Section and page number):	3.4. (Page 3-22)
LEAD AGENCY:	SFWMD
LEAD GROUP:	EREG
SFWMD PROJECT MANAGER:	Damon Meiers
Objective:	To assist local communities in developing, evaluating and implementing source controls and to evaluate the potential connection between the Western C-11 Impoundment and the WCA 3A/3B Levee Seepage Management CERP projects.
End Products:	Implementation of source control programs. Feasibility analysis and conceptual designs of water quality improvement measures for consideration in the Western C-11 Impoundment CERP Project Implementation Report.
Complete Date:	September 30, 2006
Activities, Milestones and Target Completion Dates:	Feasibility analysis of water quality improvement measures, March 2004. Conceptual design of water quality improvement measures, March 2005. Assist special districts & municipalities to implement source control programs by 9/06.
Associated Projects:	Existing cost share agreements for monitoring and BMP implementation. Western C-11 Impoundment CERP project. Broward County Integrated Water Resources Plan. Environmental Resource Permit Program. Public Outreach Plans.
Support From Other Agencies and Departments	Broward County CERP Regulation Special Districts in Basin Operations Dept. Municipalities in Basin Public Information Dept.
Major Uncertainties Associated With Project Activities:	Cooperation of municipalities and special interests in the C-11W area. Ability of buffer strip to accept stormwater and provide water quality treatment.
Project Manager Comments	

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$712,016**		
FY04	$132,045		
FY05	$317,488		
FY06	$262,483		
FY07			
FY08			
FY09			
FY10			
FY11			
FY12			
FY13			
FY14			
FY15			
FY16			

PROJECT MANAGEMENT PLAN			
PROJECT:	Bc74 Feeder Canal Basin		
LONG-TERM PLAN REFERENCE (Section and page number):	3.6. (Page 3-44)		
LEAD AGENCY:	SFWMD		
LEAD GROUP:	EREG		
SFWMD PROJECT MANAGER:	Damon Meiers		
Objective:	Develop and implement a broad program of Best Management Practices in the West Feeder Canal subbasin (e.g., those lands tributary to the Wingate Mill and Lard Can canals) directed to achieving a long-term flow-weighted mean TP concentration in subbasin discharges not greater than 50 ppb.		
End Products:	Implementation of BMP program in West Feeder Canal subbasin.		
Complete Date:	September 30, 2006		
Activities, Milestones and Target Completion Dates:	Over Fiscal Years (FY) 2004-2006, develop and implement a broad program of Best Management Practices in the West Feeder Canal subbasin Full implementation of BMP program in West Feeder Canal subbasin before December 31, 2006.		
Associated Projects:	Existing BMP Grant Program. Seminole Water Conservation Plans. Environmental Resource Permit Program. Lower West Coast Feasibility Study Regional Model. Big Cypress / L-28 Interceptor (CCC) CERP project.		
Support From Other Agencies and Departments	Seminole and Miccosukee Tribes of Florida Big Cypress National Preserve Hendry Soil & Water Conservation District	FDACS NRCS COE	Operations Dept. Regulation CERP
Major Uncertainties Associated With Project Activities:	Cooperation of landowners and other agencies. Ability to expedite CERP and other planned projects.		
Project Manager Comments			

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$713,096**		
FY04	$217,556		
FY05	$266,755		
FY06	$228,785		
FY07			
FY08			
FY09			
FY10			
FY11			
FY12			
FY13			
FY14			
FY15			
FY16			

PROJECT MANAGEMENT PLAN			
PROJECT:	Bc81(1) EAA Basins		
LONG-TERM PLAN REFERENCE (Section and page number):	5.1.1 (Page 5-6)		
LEAD AGENCY:	SFWMD		
LEAD GROUP:	EREG		
SFWMD PROJECT MANAGER:	Carmela Bedregal – Sr. Supervising Eng.		
Objective:	To identify urban and agricultural discharges that are candidates for cost effective implementation of source controls. To characterize management practices on lands or processes tributary to those discharges. To implement cost effective source controls, acting in concert with affected landowners or municipalities.		
End Products:	Implementation of cost effective source controls in the EAA basins.		
Complete Date:	September 30, 2009		
Activities, Milestones and Target Completion Dates:	Initial identification of areas of opportunity to improve water quality, June 2004 Investigate areas of opportunity and implement area specific BMPs annually.		
Associated Projects:	Existing Chapter 40E-63, F.A.C. BMP Regulatory Program with amendments as necessary. ECP including annual reports on program effectiveness. EAA Storage Reservoir CERP project		
Support From Other Agencies and Departments	EPD CERP Office of Counsel FDACS UF – IFAS NRCS FDEP		
Major Uncertainties Associated With Project Activities:	Cooperation of landowners and special interests.		
Project Manager Comments			

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$327,500**		
FY04	$77,500		
FY05	$50,000		
FY06	$50,000		
FY07	$50,000		
FY08	$50,000		
FY09	$50,000		
FY10			
FY11			
FY12			
FY13			
FY14			
FY15			
FY16			

PROJECT MANAGEMENT PLAN			
PROJECT:	Bc81(2) C-139 Basin		
LONG-TERM PLAN REFERENCE (Section and page number):	5.1.2 (Page 5-7)		
LEAD AGENCY:	SFWMD		
LEAD GROUP:	EREG		
SFWMD PROJECT MANAGER:	Carmela Bedregal – Sr. Supervising Eng.		
Objective:	To identify urban and agricultural discharges that are candidates for cost effective implementation of source controls. To characterize management practices on lands or processes tributary to those discharges. To implement cost effective source controls, acting in concert with affected landowners or municipalities.		
End Products:	Implementation of cost effective source controls in the C-139 Basin.		
Complete Date:	September 30, 2014		
Activities, Milestones and Target Completion Dates:	Initial identification of areas of opportunity to improve water quality, June 2004 Investigate areas of opportunity and implement area specific BMPs annually.		
Associated Projects:	Existing Chapter 40E-63, F.A.C. BMP Regulatory Program with amendments as necessary Existing BMP Grant Program Environmental Resource Permit Program EAA Reservoir CERP project ECP		
Support From Other Agencies and Departments	EPD FDEP Office of Counsel FDACS Regulation NRCS CERP		
Major Uncertainties Associated With Project Activities:	Cooperation of landowners and special interests		
Project Manager Comments			

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$1,550,000**		
FY04	$250,000		
FY05	$250,000		
FY06	$250,000		
FY07	$100,000		
FY08	$100,000		
FY09	$100,000		
FY10	$100,000		
FY11	$100,000		
FY12	$100,000		
FY13	$100,000		
FY14	$100,000		
FY15	$0		
FY16	$0		

PROJECT MANAGEMENT PLAN		
PROJECT:	Bc82(1)	Acquisition of Survey Data
LONG-TERM PLAN REFERENCE (Section and page number):	5.2.1 (Page 5-11)	
LEAD AGENCY:	SFWMD	
LEAD GROUP:	H & H Division	
SFWMD PROJECT MANAGER:	Howard Ehmke	
Objective:	Additional topographic surveys are needed within the footprint of the STAs to more clearly delineate ground surface elevations between interior levees and control structures. In addition, it is necessary to conduct additional vertical control surveys at flow measurement stations.	
End Products:	Topographic surveys clearly delineating ground surface elevations between interior levees and control structures and vertical control surveys to confirm or correct gage datum elevations.	
Complete Date:	September 30, 2005	
Activities, Milestones and Target Completion Dates:	June 25, 2003 compile a list of structures to be surveyed for Phase I and II July 15, 2003 develop Statement of Work for structures. October 1, 2003 Start contracting surveying services. September 30, 2004 completion of Phase I September 30, 2005 completion of Phase II	
Associated Projects:	Bc82(3) Bc80 Bf80 Bc82(2)	
Support From Other Agencies and Departments	CERP survey contractors FLDEP through the Cooperative Agreement	
Major Uncertainties Associated With Project Activities:	Estimated additional level runs that need to be run to support the elevation data at varying structures.	
Project Manager Comments		

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$500,000**		
FY04	$250,000		
FY05	$250,000		
FY06	$-		
FY07	$-		
FY08	$-		
FY09	$-		
FY10	$-		
FY11	$-		
FY12	$-		
FY13	$-		
FY14	$-		
FY15	$-		
FY16	$-		

PROJECT MANAGEMENT PLAN	
PROJECT:	Bc82(2) Additional Flow and Water Quality Monitoring Stations
LONG-TERM PLAN REFERENCE (Section and page number):	5.2.2. (Page 5-11)
LEAD AGENCY:	SFWMD
LEAD GROUP:	H & H Division
SFWMD PROJECT MANAGER:	Robb Startzman
Objective:	Establishment of new flow and water quality monitoring stations for the STAs.
End Products:	Forty-seven (adjusted from fifty) new monitoring stations providing additional information on water quality and flow. Gate sensor only at G-258 in STA-1W.
Complete Date:	September 30, 2006
Activities, Milestones and Target Completion Dates:	13 stations installed in FY04 (2 in STA-1W, 11 in STA-3/4). 25 stations installed in FY05 (19 in STA-1E, 2 in STA-1W and 4 in STA-3/4). 4 stations installed in FY06 (2 each in STA-1W and STA-2). 5 stations installed in FY07 (4 in STA-6, 1 in STA-2).
Associated Projects:	Bc05 Operations Support Bf80 Permit Compliance Bc82(1)Acquisition of Survey Data Bc82(3) Review and Correction of Flow Measurement Anomalies
Support From Other Agencies and Departments	ESDA for installation and maintenance of water level and flow sensors and water quality auto-samplers. Water Quality Monitoring Div. for sample collection, and Water Quality Analysis Div. for sample analyses. OMD for structure maintenance and operation
Major Uncertainties Associated With Project Activities:	The estimated average cost for establishment of each station (not included in Part 8 of the Conceptual Plan) is approximately $10,000, leading to the need for approximately $500,000.
Project Manager Comments	

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$1,007,500**		
FY04	$310,500		
FY05	$512,500		
FY06	$ 82,000		
FY07	$102,500		
FY08			
FY09			
FY10			
FY11			
FY12			
FY13			
FY14			
FY15			
FY16			

PROJECT MANAGEMENT PLAN	
PROJECT:	Bc82(3) Review and Correction of Flow Measurement Anomalies
LONG-TERM PLAN REFERENCE (Section and page number):	5.2.3. (Page 5-12)
LEAD AGENCY:	SFWMD
LEAD GROUP:	H&H Division
SFWMD PROJECT MANAGER:	Emile Damisse
Objective:	To address anomalies in discharge measurements
End Products:	Good quality flow data at all major flow stations in the STAs
Complete Date:	September 30, 2016
Activities, Milestones and Target Completion Dates:	Complete Correction of Flow Measurement Anomalies in STA-1W, STA-2, STA-5, and STA-6 by the end of FY05. Number of stations to be completed in FY04 (32), and in FY05 (48).
Associated Projects:	Bf80 Bc05 Bc82(1) Acquisition of Survey Data Bc82(2) Additional Flow and Water Quality Monitoring Stations Flow Monitoring Assistance Contract (FMAC) for streamgauging and Rating Analysis Flow Monitoring and Rating Development for streamgauging and Rating Analysis
Support From Other Agencies and Departments	ESDA for maintenance of water level and operation sensors OMD for structure maintenance and operation
Major Uncertainties Associated With Project Activities:	-Streamgauging opportunities contingent upon weather conditions and structure operation -Accuracy of flow data is tied to the level of maintenance of structures and water level sensors - The success of this project will depend upon availability of funds
Project Manager Comments	

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$1,600,000**		
FY04	$250,000		
FY05	$250,000		
FY06	$100,000		
FY07	$100,000		
FY08	$100,000		
FY09	$100,000		
FY10	$100,000		
FY11	$100,000		
FY12	$100,000		
FY13	$100,000		
FY14	$100,000		
FY15	$100,000		
FY16	$100,000		

PROJECT MANAGEMENT PLAN		
PROJECT:	Bc82(4)	Analysis and Interpretation
LONG-TERM PLAN REFERENCE (Section and page number):	5.2.4 (Page 5-13)	
LEAD AGENCY:	SFWMD	
LEAD GROUP:	ED	
SFWMD PROJECT MANAGER:	Jana Newman	
Objective:	Ecological assessment of data obtained from the permit compliance and operational monitoring.	
End Products:	Semi-annual vegetation survey and synoptic water collection along with annual collection and analysis of sediment and vegetation samples from all internal cells of the STAs, based on a stratified random sampling design. Staff will provide annual phosphorus budgets for the internal cells, short-term and long-term analyses in support of operational assessment.	
Complete Date:	September 30, 2016	
Activities, Milestones and Target Completion Dates:	Establish stratified random sampling design for all STA internal cells. Let contract for yearly collection and analysis of the vegetation and sediment samples. Hire contract staff for data analysis and project management through Sept. 2009. Operational support through September 30, 2009	
Associated Projects:	Bc05, Bc82, Bc83, Bc84	
Support From Other Agencies and Departments	Support from Operations for the operation and site management of the STAs will be critical. Support from Environmental Assessment and Monitoring will be essential in providing QA support for the contract labs and the collection and analysis of inflow and outflow water quality samples for each associated wetland cell.	
Major Uncertainties Associated With Project Activities:	Contract employees are needed to supplement staff in carrying out this work.	
Project Manager Comments		

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$19,217,000**		
FY04	$1,915,000		
FY05	$3,148,000		
FY06	$3,078,000		
FY07	$3,140,000		
FY08	$3,140,000		
FY09	$3,046,000		
FY10	$250,000		
FY11	$250,000		
FY12	$250,000		
FY13	$250,000		
FY14	$250,000		
FY15	$250,000		
FY16	$250,000		

PROJECT MANAGEMENT PLAN	
PROJECT:	Bc82(5): Update and Maintenance of Hydraulic Models
LONG-TERM PLAN REFERENCE (Section and page number):	5.2.5 (page 5-15)
LEAD AGENCY:	SFWMD
LEAD GROUP:	Water Resources Management Staff
SFWMD PROJECT MANAGER:	Tracey Piccone
Objective:	To evaluate and predict changes in flow distribution as the STAs mature and change with time.
End Products:	Calibrated hydraulic simulation model of each STA.
Completion Date:	On-going through 2016
Activities, Milestones and Target Completion Dates:	1. Complete STA-1W model 2. Complete STA-2 model 3. Complete STA-3/4 model 4. Complete STA-5 model 5. Complete STA-6 model 6. Complete STA-1E model
Associated Projects:	1. Bc82(1) Acquisition of Survey Data
Support From Other Agencies and Departments:	1. Topographic data from Project Implementation Department 2. Calibration data from DbHydro
Major Uncertainties Associated With Project Activities:	1. Staff resources
Project Manager Comments	

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$1,045,000**		
FY04	$200,000		
FY05	$200,000		
FY06	$100,000		
FY07	$100,000		
FY08	$100,000		
FY09	$100,000		
FY10	$35,000		
FY11	$35,000		
FY12	$35,000		
FY13	$35,000		
FY14	$35,000		
FY15	$35,000		
FY16	$35,000		

PROJECT MANAGEMENT PLAN	
PROJECT:	Bc83(1) Continued Development and Refinement of DMSTA
LONG-TERM PLAN REFERENCE (Section and page number):	5.3.1. (page 5-17)
LEAD AGENCY:	SFWMD
LEAD GROUP:	Water Resources Management Staff
SFWMD PROJECT MANAGER:	Kathy Pietro
Objective:	To refine and update the DMSTA model(s) of the STAs as additional full-scale data becomes available.
End Products:	Calibrated DMSTA simulation model for each STA, including reservoir component.
Complete Date:	September 30, 2010
Activities, Milestones and Target Completion Dates:	TBD. Need to discuss with Dr. Walker. FY03: Develop initial DMSTA model for each STA FY04 - FY10: Finalize DMSTA model for each STA, including input data sets, calibration, and verification of each treatment cell.
Associated Projects:	Bc82(1) Acquisition of Survey Data Bc83(2) Water Quality Impacts of Reservoirs Bc83(3) Tracking of Related Projects Bc86(1) Update Baseline Data Sets Bc86(3) Influence of CERP Projects on Inflow Volumes and Loads Bc86(4) Lake Okeechobee Long-term Trends EAA Storage Reservoirs Project (CERP)
Support From Other Agencies and Departments	U.S. Department of Interior SFWMD Everglades Division
Major Uncertainties Associated With Project Activities:	Quality of data that is available to support model calibration.
Project Manager Comments	

Project Cost Estimates	10/2003 Long-Term Plan (2003 dollars)		
Total cost	**$2,092,750**		
FY04	$242,750		
FY05	$325,000		
FY06	$325,000		
FY07	$300,000		
FY08	$300,000		
FY09	$300,000		
FY10	$300,000		
FY11	$0		
FY12	$0		
FY13	$0		
FY14	$0		
FY15	$0		
FY16	$0		

PROJECT MANAGEMENT PLAN		
PROJECT:	Bc83(2)	Water Quality Impacts of Reservoirs
LONG-TERM PLAN REFERENCE (Section and page number):	5.3.2. (Page 5-18)	
LEAD AGENCY:	SFWMD	
LEAD GROUP:	TBD	
SFWMD PROJECT MANAGER:	Yanling Zhao	
Objective:	To assist the EAA Storage Reservoirs Phase 1 PDT in the acquisition and analysis of calibration data sets for water quality impacts associated with reservoirs. These calibration data sets will be obtained from similar water bodies in central and southern Florida i.e., Lake Apopka, Lake Jessup, the Brevard County Stick Marsh and the Sun Ag reservoir, as well as Lake Istokpoga and other large-scale water supply reservoirs in South Florida.	
End Products:	Data files and summary report(s) of data sets collected and analyzed for use in calibrating reservoir components of water quality model(s).	
Complete Date:	September 30, 2006	
Activities, Milestones and Target Completion Dates:	FY04: Collect and analyze data from the recommended water bodies. FY05: TBD FY06: TBD	
Associated Projects:	Bc83(1) Continued Development and Refinement of DMSTA Bc86(3) Influence of CERP Projects on Inflow Volumes and Loads	
Support From Other Agencies and Departments	SFWMD EAA Storage Reservoirs Project staff Department of Interior	
Major Uncertainties Associated With Project Activities:	CERP timelines and schedules.	
Project Manager Comments		

Project Cost Estimates	10/2003 Long-Term Plan (2003 dollars)		
Total cost	**$1,490,000**		
FY04	$340,000		
FY05	$575,000		
FY06	$575,000		
FY07	$0		
FY08	$0		
FY09	$0		
FY10	$0		
FY11	$0		
FY12	$0		
FY13	$0		
FY14	$0		
FY15	$0		
FY16	$0		

PROJECT MANAGEMENT PLAN	
PROJECT:	Bc83(3) Continued Operation and Monitoring of Existing PSTA Research Projects
LONG-TERM PLAN REFERENCE (Section and page number):	5.3.3. (Page 5-20)
LEAD AGENCY:	SFWMD
LEAD GROUP:	ED
SFWMD PROJECT MANAGER:	Lori Wenkert
Objective:	To track the performance of District PSTA field-scale and test cell demonstration projects and factor the results into Post-2006 projects, as appropriate. Additionally, periphyton systems under investigation by the USACE at STA1E and C-111 are under investigations, and to the extent possible, the District will invite the researchers to submit their data to the District for use in DMSTA model forecasting.
End Products:	The concentration data generated from these two demonstration projects will be made available for use in DMSTA model forecasting.
Complete Date:	September 30, 2006
Activities, Milestones and Target Completion Dates:	Biweekly collection and analysis of water samples from District PSTA demonstration projects. The District will continue ongoing discussions with USACE regarding the availability of data from STA-1E and C-111 periphyton systems.
Associated Projects:	
Support From Other Agencies and Departments	USACE support to obtain data from the STA-1E and C-111 periphyton systems currently under investigation. DOI currently provides the DMSTA model forecasting. The District Environmental Monitoring and Assessment provides critical support in QA and contracting support for sample analysis.
Major Uncertainties Associated With Project Activities:	This work cannot be done without contract employees. STA-1E and C-111 periphyton projects are not under District control. The inclusion of the monitoring of the District PSTA projects was not originally included in the Conceptual Plan, but this data is critical to the continuing calibration of the DMSTA forecasting model. Therefore, the cost associated with the operation, data collection and analysis has been added to the current estimates. Additionally, these estimates do not include cost estimates for the operation, data collection and analysis of the PSTA demonstration project currently slated for implementation into STA-3/4.
Project Manager Comments	

Project Cost Estimate	10/2003 Long-Term Plan (2003 dollars)		
Total cost	**$1,275,000**		
FY04	$425,000		
FY05	$425,000		
FY06	$425,000		
FY07	$0		
FY08	$0		
FY09	$0		
FY10	$0		
FY11	$0		
FY12	$0		
FY13	$0		
FY14	$0		
FY15	$0		
FY16	$0		

PROJECT MANAGEMENT PLAN	
PROJECT:	Bc83(4) PSTA Demonstration Project in STA-3/4
LONG-TERM PLAN REFERENCE (Section and page number):	5.3.3. (Page 5-20)
LEAD AGENCY:	SFWMD
LEAD GROUP:	Construction (3732)
SFWMD PROJECT MANAGER:	Raul Pellegrino
Objective:	To construct and operate a large-scale PSTA demonstration project
End Products:	A 107-acre PSTA Demonstration Project in STA-3/4
Complete Date:	September 30, 2008
Activities, Milestones and Target Completion Dates:	Design start - September 2003 RFB issue - December 2003 Bids due – January 2004 Governing board – February 2004 Construction start – March 2004 Construction complete – December 2004 Data collection through September 2008
Associated Projects:	Bc83(3)
Support From Other Agencies and Departments	
Major Uncertainties Associated With Project Activities:	
Project Manager Comments	

Project Cost Estimate	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$6,033,500**		
FY04	$1,900,000		
FY05	$2,033,500		
FY06	$700,000		
FY07	$700,000		
FY08	$700,000		
FY09	$0		
FY10	$0		
FY11	$0		
FY12	$0		
FY13	$0		
FY14	$0		
FY15	$0		
FY16	$0		

PROJECT MANAGEMENT PLAN	
PROJECT:	Bc84(1) Operational Strategy
LONG-TERM PLAN REFERENCE (Section and page number):	5.4.1. (Page 5-27)
LEAD AGENCY:	SFWMD
LEAD GROUP:	Water Resources Management Staff
SFWMD PROJECT MANAGER:	Gary Goforth
Objective:	To refine the operational plan for STA-2 Cell 3 in order to optimize nutrient removal performance. The plan will include recommendations for hydraulic loading and controlling water depths for vegetation management and to prevent prolonged dry-down. This cell will be used to conduct a demonstration project for optimizing SAV performance.
End Products:	Operational Plan for STA-2 Cell 3 to support operational decisions needed to constrain hydraulic and phosphorus loadings to low values, insofar as feasible.
Complete Date:	September 30, 2006
Activities, Milestones and Target Completion Dates:	FY04: A. Analyze STA-1W Cell 4 hydraulic and phosphorus loading for January 1998 - December 1999 B. Develop draft operational plan, incorporating updated 2D hydraulic model and performance data. FY05: Complete Operational Plan for Cell 3 of STA-2
Associated Projects:	Bc84(2) Vegetation Maintenance Bc84(3) Hydrologic and Hydraulic Assessment Bc82(5) Update & Maintenance of Hydraulic Models Bc84(5) Comparative Analysis Bc84(4) Internal Measurements Adaptive Implementation
Support From Other Agencies and Departments	SFWMD Operations, Control, Engineering and Vegetation Management staff SFWMD Everglades Division
Major Uncertainties Associated With Project Activities:	1. Applicability of STA-1W Cell 4 data to STA-2 Cell 3. 2. Influence of proposed levee in Cell 3.
Project Manager Comments	

Project Cost Estimates	10/2003 Long-Term Plan		
Total cost	$0		
FY04	$0		
FY05	$0		
FY06	$0		
FY07	$0		
FY08	$0		
FY09	$0		
FY10	$0		
FY11	$0		
FY12	$0		
FY13	$0		
FY14	$0		
FY15	$0		
FY16	$0		

PROJECT MANAGEMENT PLAN		
PROJECT:	Bc84(2) Vegetation Maintenance	
LONG-TERM PLAN REFERENCE (Section and page number):	5.4.2 (Page 5-27)	
LEAD AGENCY:	SFWMD	
LEAD GROUP:	OCEVM	
SFWMD PROJECT MANAGER:		
Objective:	To manage vegetation in STA-2 Cell 3 in order to optimize SAV performance.	
End Products:		
Complete Date:	September 30, 2006	
Activities, Milestones and Target Completion Dates:		
Associated Projects:		
Support From Other Agencies and Departments		
Major Uncertainties Associated With Project Activities:		
Project Manager Comments		

Project cost estimates:	**10/2003 Long-Term Plan**		
Total cost	$0		
FY04	$0		
FY05	$0		
FY06	$0		
FY07	$0		
FY08	$0		
FY09	$0		
FY10	$0		
FY11	$0		
FY12	$0		
FY13	$0		
FY14	$0		
FY15	$0		
FY16	$0		

PROJECT MANAGEMENT PLAN		
PROJECT:	Bc84(3) Hydrologic and Hydraulic Assessment (tracer)	
LONG-TERM PLAN REFERENCE (Section and page number):	5.4.3 (Page 5-28)	
LEAD AGENCY:	SFWMD	
LEAD GROUP:	ED	
SFWMD PROJECT MANAGER:	Warren Wagner	
Objective:	To perform and evaluate the results of dye tracer studies in STA-2 Cell 3.	
End Products:	Analysis of Lithium Tracer Injected into STA-2, Cell 3	
Complete Date:	September 30, 2007	
Activities, Milestones and Target Completion Dates:	Issue two RFBs for dye tracer studies. One contract for the first study in FY04 and then issue a second RFB in FY07 for the follow-up study. The construction of the STA-2, Cell 3 levee was moved to FY06, which will result in performance of the follow-up tracer study in FY07. Accept completed report of follow-up tracer study by September 30, 2007	
Associated Projects:	Bc84(4) Internal Measurement	
Support From Other Agencies and Departments	Steady flows to STA-2, Cell 3 must be provided for several months; therefore support from Operations will be critical to the success of this project.	
Major Uncertainties Associated With Project Activities:	Storms may interfere with the delivery of steady flow to the project during the study. This work cannot be done without contract employees.	
Project Manager Comments		

Project cost estimates	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$600,000**		
FY04	$300,000		
FY05	$0		
FY06	$0		
FY07	$300,000		
FY08	$0		
FY09	$0		
FY10	$0		
FY11	$0		
FY12	$0		
FY13	$0		
FY14	$0		
FY15	$0		
FY16	$0		

PROJECT MANAGEMENT PLAN		
PROJECT:	Bc84(4) Internal Measurements	
LONG-TERM PLAN REFERENCE (Section and page number):	5.4.4. (Page 5-28)	
LEAD AGENCY:	SFWMD	
LEAD GROUP:	ED	
SFWMD PROJECT MANAGER:	Warren Wagner	
Objective:	To collect and evaluate additional internal synoptic measurements to aid in interpretation of STA-2 Cell 3 performance.	
End Products:	Synoptic phosphorus measurements to correspond with the dye tracer studies.	
Complete Date:	September 30, 2008	
Activities, Milestones and Target Completion Dates:	Issue RFBs for synoptic phosphorus measurements during each dye study. One contract for the first study in FY04 and then issue a second RFB in FY07 for the follow-up study. Accept completed report synoptic analysis by September 30, 2008. In years where no tracer analysis is scheduled, this task will be used to support yearly standardized monitoring.	
Associated Projects:	Bc84(3) Bc82(4)	
Support From Other Agencies and Departments	Steady flows to STA-2, Cell 3 must be provided for several months; therefore support from Operations will be critical to the success of this project.	
Major Uncertainties Associated With Project Activities:	Storms may interfere with the delivery of steady flow to the project during the study. This work cannot be done without contract employees.	
Project Manager Comments		

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$500,000**		
FY04	$100,000		
FY05	$100,000		
FY06	$100,000		
FY07	$100,000		
FY08	$100,000		
FY09	$0		
FY10	$0		
FY11	$0		
FY12	$0		
FY13	$0		
FY14	$0		
FY15	$0		
FY16	$0		

PROJECT MANAGEMENT PLAN		
PROJECT:	Bc84(5) Comparative Analysis	
LONG-TERM PLAN REFERENCE (Section and page number):	5.4.5. (Page 5-28)	
LEAD AGENCY:	SFWMD	
LEAD GROUP:	TBD	
SFWMD PROJECT MANAGER:	TBD	
Objective:	To document the effectiveness of the attempt at optimizing SAV performance in STA-2 Cell 3 and to develop recommendations for other STAs.	
End Products:	Report documenting whether or not the attempt at optimizing SAV performance was successful, and including recommendations for other STAs.	
Complete Date:	September 30, 2008	
Activities, Milestones and Target Completion Dates:	September 30, 2008 Report Complete	
Associated Projects:	Bc82 Enhanced Control and Monitoring Bc84 (1) through (4) Optimizing SAV Performance	
Support From Other Agencies and Departments	SFWMD Environmental Monitoring and Assessment SFWMD Everglades Division	
Major Uncertainties Associated With Project Activities:	Results of PDE investigations.	
Project Manager Comments		

Project Cost Estimates	10/2003 Long-Term Plan (2003 dollars)		
Total cost	**$100,000**		
FY04	$-		
FY05	$-		
FY06	$-		
FY07	$-		
FY08	$100,000		
FY09	$-		
FY10	$-		
FY11	$-		
FY12	$-		
FY13	$-		
FY14	$-		
FY15	$-		
FY16	$-		

PROJECT MANAGEMENT PLAN	
PROJECT:	Bc25 Evaluation of Full-Scale STA Enhancements
LONG-TERM PLAN REFERENCE (Section and page number):	5.5.1. (Page 5-30)
LEAD AGENCY:	SFWMD
LEAD GROUP:	Water Resources Management Staff
SFWMD PROJECT MANAGER:	Tracey Piccone
Objective:	To complete demonstration projects including construction of a limerock berm in Cell 5B of STA-1W and implementation of vegetation management measures designed to improve STA performance. This project includes management of the DEP Grant Agreement.
End Products:	Final Project Report required by DEP Agreement G0040 will present the results of the demonstration projects that can be applied to other STAs to improve their performance.
Complete Date:	September 30, 2006
Activities, Milestones and Target Completion Dates:	FY03 Limerock Berm construction complete, start of monitoring. FY04 Vegetation Management projects complete, start of monitoring. FY06 Monitoring and analyses complete.
Associated Projects:	Bc82 Enhanced Control and Monitoring Adaptive Implementation
Support From Other Agencies and Departments	Florida DEP - Grant Administrator USEPA - Federal Grant Funding SFWMD Engineering and Construction staff SFWMD O&M/Vegetation Management staff
Major Uncertainties Associated With Project Activities:	
Project Manager Comments	

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**	**Current Estimate (2003 dollars)**	
Total cost	**$1,263,616**	**$1,862,268**	
FY03	$-	$554,896	
FY04	$1,198,082	$1,239,872	
FY05	$65,534	$67,500	
FY06	$-	$-	
FY07	$-	$-	
FY08	$-	$-	
FY09	$-	$-	
FY10	$-	$-	
FY11	$-	$-	
FY12	$-	$-	
FY13	$-	$-	
FY14	$-	$-	
FY15	$-	$-	
FY16	$-	$-	

PROJECT MANAGEMENT PLAN	
PROJECT:	Bc86(1) Update Baseline Data Sets
LONG-TERM PLAN REFERENCE (Section and page number):	5.6 (Page 5-32)
LEAD AGENCY:	SFWMD
LEAD GROUP:	Water Resources Management Staff
SFWMD PROJECT MANAGER:	Tracey Piccone
Objective:	To regularly update the analyses presented in the *Baseline Data* report to continually improve the degree of confidence in the projected total phosphorus loads in inflows to the stormwater treatment areas (or, in some instances, discharged directly to the EPA).
End Products:	Updated Baseline Data Report including supporting Excel spreadsheets
Complete Date:	September 30, 2016
Activities, Milestones and Target Completion Dates:	September 30, 2005 Update 1 September 30, 2007 Update 2 September 30, 2009 Update 3 September 30, 2011 Update 4 September 30, 2013 Update 5 September 30, 2015 Update 6
Associated Projects:	Bc86(2) through (4) Improved Reliability of Inflow Forecasts Bc83 Improved Analytical and Forecasting Tools
Support From Other Agencies and Departments	U.S. Department of Interior SFWMD EMA SFWMD EREG
Major Uncertainties Associated With Project Activities:	HSM ability to provide regional model support.
Project Manager Comments	

Project Cost Estimates	10/2003 Long-Term Plan (2003 dollars)		
Total cost	**$900,000**		
FY04	$-		
FY05	$150,000		
FY06	$-		
FY07	$150,000		
FY08	$-		
FY09	$150,000		
FY10	$-		
FY11	$150,000		
FY12	$-		
FY13	$150,000		
FY14	$-		
FY15	$150,000		
FY16	$-		

PROJECT MANAGEMENT PLAN	
PROJECT:	Bc86(2) Basins With Limited Current Data
LONG-TERM PLAN REFERENCE (Section and page number):	5.6.2. (Page 5-33)
LEAD AGENCY:	SFWMD
LEAD GROUP:	Water Resources Management Staff
SFWMD PROJECT MANAGER:	Kathy Pietro
Objective:	To supplement the regular updates described in Bc86(1) in certain of the basins with little quantitative data available for use in development of the *Baseline Data*.
End Products:	Improved water quality and quantity data for basins with limited current data.
Complete Date:	September 30, 2006
Activities, Milestones and Target Completion Dates:	FY04: Analyze water quantity and quality data prior to operation of S-319 FY05: Update and refine data based on data acquired at S-319 FY06: Update basin discharge flow and phosphorus estimates for C-11W Basin
Associated Projects:	Bc86(1) Update Baseline Data Sets Bc83 Improved Analytical and Forecasting Tools Bc73 C-11W Basin
Support From Other Agencies and Departments	SFWMD EMA SFWMD EREG
Major Uncertainties Associated With Project Activities:	Availability of appropriate data for basins.
Project Manager Comments	

Project cost estimates	10/2003 Long-Term Plan (2003 dollars)		
Total cost	**$300,000**		
FY04	$125,000		
FY05	$100,000		
FY06	$-		
FY07	$75,000		
FY08	$-		
FY09	$-		
FY10	$-		
FY11	$-		
FY12	$-		
FY13	$-		
FY14	$-		
FY15	$-		
FY16	$-		

PROJECT MANAGEMENT PLAN		
PROJECT:	Bc86(3)	Influence of CERP Projects on Inflow Volumes and Loads
LONG-TERM PLAN REFERENCE (Section and page number):	5.6.3.(Page 5-34)	
LEAD AGENCY:	SFWMD	
LEAD GROUP:	Water Resources Management Staff	
SFWMD PROJECT MANAGER:	Tracey Piccone	
Objective:	To update the projected impact of CERP projects on inflow volumes and loads to STAs and receiving waterbodies of the Everglades Protection Area.	
End Products:	Two updates to the estimated STA inflows (one upon completion of EAA Storage Reservoirs Project Phase 1 PDT and one upon completion of Phase 2 PDT).	
Complete Date:	FY 2010	
Activities, Milestones and Target Completion Dates:	First update by September 30, 2005 Second update by September 30, 2010	
Associated Projects:	CERP EAA Storage Reservoirs Project Bc83(1) Continued Development and Refinement of DMSTA Bc83(2) Water Quality Impacts of Reservoirs Bc86(1) Update Baseline Data Sets	
Support From Other Agencies and Departments	SFWMD CERP EAA Storage Reservoirs U.S. Department of Interior	
Major Uncertainties Associated With Project Activities:	CERP schedules and completion dates.	
Project Manager Comments		

Project Cost Estimates	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$150,000**		
FY04	$-		
FY05	$75,000		
FY06	$-		
FY07	$-		
FY08	$-		
FY09	$-		
FY10	$75,000		
FY11	$-		
FY12	$-		
FY13	$-		
FY14	$-		
FY15	$-		
FY16	$-		

PROJECT MANAGEMENT PLAN		
PROJECT:	Bc86(4)	Lake Okeechobee Long-term Trends
LONG-TERM PLAN REFERENCE (Section and page number):	5.6.4. (Page 5-35)	
LEAD AGENCY:	SFWMD	
LEAD GROUP:	Water Resources Management Staff	
SFWMD PROJECT MANAGER:	Kathy Pietro	
Objective:	To better understand the relationship between Lake Okeechobee nutrient status and operation (depth regulation, choice of outflow point) on phosphorus loads discharged to the STAs.	
End Products:	Updated modeling and trend analyses for TP and assessment of relationship between phosphorus concentrations in pelagic zone and at outflow points that deliver water to the STAs and reservoirs.	
Complete Date:	September 30, 2009	
Activities, Milestones and Target Completion Dates:	First update complete by end of FY04 Second update complete by end of FY09	
Associated Projects:	Bc83 Improved Analytical and Forecasting Tools Bc86 Improved Reliability of Inflow Forecasts	
Support From Other Agencies and Departments	SFWMD Lake Okeechobee Division U.S. Department of Interior SFWMD Operations Control, Engineering and Vegetation Management	
Major Uncertainties Associated With Project Activities:		
Project Manager Comments		

Project Cost Estimates	10/2003 Long-Term Plan (2003 dollars)		
Total cost	**$150,000**		
FY04	$75,000		
FY05	$-		
FY06	$-		
FY07	$-		
FY08	$-		
FY09	$75,000		
FY10	$-		
FY11	$-		
FY12	$-		
FY13	$-		
FY14	$-		
FY15	$-		
FY16	$-		

PROJECT MANAGEMENT PLAN		
PROJECT:	Bc86(5)	Determine Relationship Between Discharges and Water Quality Within the EPA
LONG-TERM PLAN REFERENCE (Section and page number):	5.6.5. (Page 5-36)	
LEAD AGENCY:	SFWMD	
LEAD GROUP:	EMA, Resource Assessment Division	
SFWMD PROJECT MANAGER:	Tim Bechtel and Garth Redfield	
Objective:	To define the relationships between the quality of water discharged into, and the water quality within, the Everglades Protection Area.	
End Products:	An interactive public workshop on water quality relationships and a District technical publication followed by publication in the open literature (if resources permit)	
Complete Date:	September 30, 2005	
Activities, Milestones and Target Completion Dates:	August 31, 2003: Develop SOW and conduct internal review. October 31, 2003: Revise SOW based on external, inter-agency review November 30, 2003: Contract for technical support June 1, 2004: Revise SOW in light of first six months effort June 1, 2005: Complete technical analysis and draft technical publication, a collaboration with RAD staff July 15, 2005: Conduct workshop and develop a responses to comments September 30, 2005: Complete contract and publish technical document.	
Associated Projects:	Bc82(4) Analysis and Interpretation Bc83(1) Continued Development and Refinement of DMSTA Bc87(1) Recovery Model Development and Calibration Bc87(2) Downstream Influences of Adding Clean Water to Previously Impacted Areas	
Support From Other Agencies and Departments	DEP and DOI provide substantive review comments on SOW and publications	
Major Uncertainties Associated With Project Activities:	Differing perspectives on the design and interpretation of monitoring data and its use on developing relationships are expected. Spatial and temporal extent of data summation remains to be determined, as do particular models and statistical approaches.	
Project Manager Comments		

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$400,000**		
FY04	$200,000		
FY05	$200,000		
FY06	$-		
FY07	$-		
FY08	$-		
FY09	$-		
FY10	$-		
FY11	$-		
FY12	$-		
FY13	$-		
FY14	$-		
FY15	$-		
FY16	$-		

PROJECT MANAGEMENT PLAN

PROJECT:	Bc87(1) Recovery Model Development and Calibration
LONG-TERM PLAN REFERENCE (Section and page number):	7.1.1. (Page 7-4)
LEAD AGENCY:	SFWMD
LEAD GROUP:	Office of Modeling
SFWMD PROJECT MANAGER:	Carl Fitz
Objective:	To refine and calibrate a simulation model capable of predicting the ecological responses of impacted areas of the Everglades Protection Area to improved water quality, particularly phosphorous.
End Products:	Calibrated simulation model
Complete Date:	September 30, 2007
Activities, Milestones and Target Completion Dates:	1. Research design: Through simulation sensitivity/uncertainty analyses using existing model versions, provide guidance on key processes and rate parameters that require enhanced field research. May 2004. 2. Algorithm enhancement: Formulate suite of alternative algorithms for soil-surface interactions and vegetation succession, evaluate relative computational performance. May 2005. 3. Data synthesis I: Integrate existing data from multiple regions (pre-existing and preliminary new research), performing scenario analyses and sensitivity analyses under sparse and or hypothetical data sets – feedback to research program. Sept 2005. 4. Data synthesis II. Integrate existing data from primary research sites; evaluate model algorithm performance in preliminary calibration exercise. Sept 2006. 5. Data and model synthesis: Synthesizing 3 years of (the longer term) process-based studies, demonstrate model performance (calibration) and relative uncertainty; perform model extrapolations of soil and vegetation responses to alternative scenarios. Sept 2007.
Associated Projects:	[the field and mesocosm components of this PMP] and Bc87 (2) through (6)
Support From Other Agencies and Departments	[unknown, but could/should include Environmental Monitoring and Assessment, Hydrologic Systems Modeling]
Major Uncertainties Associated With Project Activities:	1. This work cannot be completed without contract employees or redirection of regular District employees. 2. The model development work is highly dependent upon the successful, timely, completion of parallel field research that investigates the questions of soil, periphyton, and vegetation responses to new conditions.
Project Manager Comments	

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$1,000,000**		
FY04	$250,000		
FY05	$250,000		
FY06	$250,000		
FY07	$250,000		
FY08	$-		
FY09	$-		
FY10	$-		
FY11	$-		
FY12	$-		
FY13	$-		
FY14	$-		
FY15	$-		
FY16	$-		

PROJECT MANAGEMENT PLAN	
PROJECT:	Bc87(2) Downstream Influences of Adding Clean Water to Previously Impacted Areas
LONG-TERM PLAN REFERENCE (Section and page number):	7.1.2. (Page 7-4)
LEAD AGENCY:	SFWMD
LEAD GROUP:	ED
SFWMD PROJECT MANAGER:	Contract Sup. Env. Scientist-not yet hired
Objective:	To determine the ecological response of impacted areas following the addition of clean water, in order to permit full development and calibration of the recovery model in Bc87(1).
End Products:	Calculation of nutrient reflux in impacted areas. Documentation of nutrient front recession or reduced rate of expansion. Coefficients for recovery model.
Complete Date:	September 30, 2006
Activities, Milestones and Target Completion Dates:	Establishment of supplemental monitoring efforts to ensure adequate downstream coverage of discharge points-Jun 2004. Optimization and enhancement of parameter collection at transect sites to include rates essential for P transport/recovery in the model, e.g., reflux, burial rates and soil accumulation-Dec 2004 Delineation of transition zones for focused cause and effect research and monitoring to support recovery model calibration-Dec 2004
Associated Projects:	404 permit research and monitoring, CERP transect monitoring
Support From Other Agencies and Departments	DEP for biological analyses
Major Uncertainties Associated With Project Activities:	This work cannot be done without contract employees or redirection of regular District employees. Current costs assume continuation of 404 permit and CERP gradient monitoring resulting in significant cost savings and that only new sites will need to be established in WCA3A
Project Manager Comments	

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$1,500,000**		
FY04	$500,000		
FY05	$500,000		
FY06	$500,000		
FY07	$-		
FY08	$-		
FY09	$-		
FY10	$-		
FY11	$-		
FY12	$-		
FY13	$-		
FY14	$-		
FY15	$-		
FY16	$-		

PROJECT MANAGEMENT PLAN		
PROJECT:	Bc87(3) Options for Accelerating Recovery	
LONG-TERM PLAN REFERENCE (Section and page number):	7.1.3. (Page 7-5)	
LEAD AGENCY:	SFWMD	
LEAD GROUP:	ED	
SFWMD PROJECT MANAGER:	Contract Sup. Env. Scientist-not yet hired	
Objective:	To research and analyze optional management scenarios for accelerating recovery of impacted areas of the Everglades Protection Area.	
End Products:	Reports documenting environmental responses of impacted areas to different management options	
Complete Date:	September 30, 2006	
Activities, Milestones and Target Completion Dates:	FY04-Establishment of recovery target. FY04-Identification of management scenarios for further testing and coefficients necessary for model development. FY04-Initiate research contract on cattail/STA effluent interactions and the influence of different loading rates. FY05-Initiate P flux studies to assess conditions necessary to accelerate reflux or binding of P in soils. FY05-Initiate research to examine the degree of impact on restoration rate and provide coefficients for recovery model. FY06-complete all research aspects and provide summary report.	
Associated Projects:	Bc87 (1, 2, 4, 5 and 6)	
Support From Other Agencies and Departments		
Major Uncertainties Associated With Project Activities:	This work cannot be done without contract employees or redirection of regular District employees. Estimates for testing all the alternatives are based on micro-/meso-scale cause and effect studies. If extensive large-scale field trials are necessary the costs may increase.	
Project Manager Comments		

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$1,500,000**		
FY04	$500,000		
FY05	$500,000		
FY06	$500,000		
FY07	$-		
FY08	$-		
FY09	$-		
FY10	$-		
FY11	$-		
FY12	$-		
FY13	$-		
FY14	$-		
FY15	$-		
FY16	$-		

PROJECT MANAGEMENT PLAN	
PROJECT:	Bc87(4) Alternatives Analysis and Plan Formulation
LONG-TERM PLAN REFERENCE (Section and page number):	7.1.4. (Page 7-6)
LEAD AGENCY:	SFWMD
LEAD GROUP:	ED
SFWMD PROJECT MANAGER:	Contract Sup. Env. Scientist-not yet hired
Objective:	To conduct a full alternatives analysis and develop a plan formulation of management scenarios for accelerating recovery of impacted areas of the Everglades Protection Area.
End Products:	Report summarizing risks and benefits associated with different management scenarios
Complete Date:	September 30, 2008
Activities, Milestones and Target Completion Dates:	Consolidation of data collected from research and monitoring relevant to this project. Dec 2007 Run models to assess effect of alternative strategies on impacted areas-will include environmental risk versus benefit analysis, as well as cost analysis. Jun 2008
Associated Projects:	Bc87 (1), Bc87 (2), Bc87 (3), Bc87 (5), and Bc87 (6) 404 permit research and monitoring program, CERP gradient monitoring
Support From Other Agencies and Departments	Support from HSM for output from water management model.
Major Uncertainties Associated With Project Activities:	This work cannot be done without contract employees or redirection of regular District employees. Short-term data collection may not facilitate accurate projection of management strategies.
Project Manager Comments	

Project cost estimates:	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$400,000**		
FY04	$-		
FY05	$-		
FY06	$-		
FY07	$-		
FY08	$400,000		
FY09	$-		
FY10	$-		
FY11	$-		
FY12	$-		
FY13	$-		
FY14	$-		
FY15	$-		
FY16	$-		

PROJECT MANAGEMENT PLAN	
PROJECT:	Bc87(5) Hydropattern Restoration
LONG-TERM PLAN REFERENCE (Section and page number):	7.2. (Page 7-7)
LEAD AGENCY:	SFWMD
LEAD GROUP:	Water Resources Management Staff
SFWMD PROJECT MANAGER:	Tracey Piccone
Objective:	To restore a sheet flow approximation to various areas along the northerly boundary of the Everglades Protection Area.
End Products:	Structural modifications and components to allow delivery of STA discharges to WCA-2A, East WCA-3A and West WCA-3A via a sheet flow approximation.
Complete Date:	FY 2016
Activities, Milestones and Target Completion Dates:	Construction complete by September 30, 2012 O&M through FY 2016 and beyond
Associated Projects:	Bc87(1), (2), (3), (4), and (6)
Support From Other Agencies and Departments	SFWMD Engineering and Construction
Major Uncertainties Associated With Project Activities:	Results of research, analyses and plan formulation process associated with Bc87
Project Manager Comments	

Project Cost Estimates	10/2003 Long-Term Plan (2003 dollars)		
Total cost	**$23,470,000**		
FY04	$0		
FY05	$0		
FY06	$0		
FY07	$0		
FY08	$0		
FY09	$1,000,000		
FY10	$1,000,000		
FY11	$10,735,000		
FY12	$10,735,000		
FY13	$0		
FY14	$0		
FY15	$0		
FY16	$0		

PROJECT MANAGEMENT PLAN	
PROJECT:	Bc87(6) Implement Steps to Accelerate Recovery of Impacted Areas
LONG-TERM PLAN REFERENCE (Section and page number):	7.3. (Page 7-21)
LEAD AGENCY:	SFWMD
LEAD GROUP:	Water Resources Management Staff
SFWMD PROJECT MANAGER:	Tracey Piccone
Objective:	Implement the most promising techniques to accelerate recovery of the impacted areas.
End Products:	Accelerated recovery of impacted areas in the EPA
Complete Date:	FY 2014
Activities, Milestones and Target Completion Dates:	Commence implementation in FY2010. Funding for this activity is to occur for five years, ending in FY 2014.
Associated Projects:	Bc87(1) through (5)
Support From Other Agencies and Departments	SFWMD Engineering and Construction
Major Uncertainties Associated With Project Activities:	Results of research, analyses and plan formulation process associated with Bc87
Project Manager Comments	

Project Cost Estimates	**10/2003 Long-Term Plan (2003 dollars)**		
Total cost	**$7,670,865**		
FY04	$-		
FY05	$-		
FY06	$-		
FY07	$-		
FY08	$-		
FY09	$-		
FY10	$1,626,183		
FY11	$1,578,818		
FY12	$1,532,833		
FY13	$1,488,188		
FY14	$1,444,843		
FY15	$-		
FY16	$-		

PROJECT MANAGEMENT PLAN		
PROJECT:	Bc88 Adaptive Implementation	
LONG-TERM PLAN REFERENCE (Section and page number):	6.3.1. (Page 6-92)	
LEAD AGENCY:	SFWMD	
LEAD GROUP:	Water Resources Management Staff	
SFWMD PROJECT MANAGER:	Tracey Piccone	
Objective:	To implement additional enhancements and modifications resulting from the PDE process that can be implemented within the existing footprints of the ECP STAs, or added to CERP projects as a locally preferred option to enhance their water quality performance.	
End Products:	Implementation of additional water quality improvement measures.	
Complete Date:	Ongoing through FY10	
Activities, Milestones and Target Completion Dates:	TBD	
Associated Projects:	Bc82 Enhanced Control and Monitoring Bc83 Improved Analytical & Forecasting Tools Bc84 Replication of STA-1W Cell 4 Performance Bc86 Improved Reliability of Inflow Forecasts Bc25 Additional Structural and Operational Measures	Bc73 C-11W Basin Bc71 NSID Basin Bc75 Acme Basin B
Support From Other Agencies and Departments	SFWMD CERP Staff SFWMD Engineering and Construction Staff	
Major Uncertainties Associated With Project Activities:	CERP timelines and schedules. Results of PDE investigations.	
Project Manager Comments		

Project Cost Estimates	**10/2003 Long-Term Plan**		
Total cost	**$36,000,000 (shown escalated)**		
FY04	$-		
FY05	$-		
FY06	$-		
FY07	$9,000,000		
FY08	$9,000,000		
FY09	$9,000,000		
FY10	$9,000,000		
FY11	$-		
FY12	$-		
FY13	$-		
FY14	$-		
FY15	$-		
FY16	$-		

PROJECT MANAGEMENT PLAN		
PROJECT:	Bc90 Long-Term Plan Program Management	
LONG-TERM PLAN REFERENCE (Section and page number):	Throughout Plan	
LEAD AGENCY:	SFWMD	
LEAD GROUP:	WRM Staff	
SFWMD PROJECT MANAGER:	Gary Goforth	
Objective:	To provide programmatic support for implementation of the Long-term Plan	
End Products:	Annual budgets, Project and Program Management Plans, meeting summaries, STA operations plans and associated work products	
Complete Date:	On-going through FY2016	
Activities, Milestones and Target Completion Dates:	1. Annual budgets 2. Program Management Plan – initial and annual updates 3. Project management plans – initial and updates 4. Periodic STA Design Review Staff meetings, Governing Board meetings, and stakeholder meetings	
Associated Projects:	All	
Support From Other Agencies and Departments	Coordination and communication among the departments within the District, and with other agencies and stakeholders	
Major Uncertainties Associated With Project Activities:	Adequate staffing, good coordination with external parties and CERP projects	
Project Manager Comments		

Project cost estimates:	**10/2003 Long-Term Plan (3% escalation shown)**		
Total cost	**$13,151,000**		
FY04	$916,000		
FY05	$1,248,000		
FY06	$1,108,000		
FY07	$1,970,000		
FY08	$979,000		
FY09	$994,000		
FY10	$964,000		
FY11	$1,073,000		
FY12	$1,098,000		
FY13	$706,000		
FY14	$719,000		
FY15	$681,000		
FY16	$695,000		